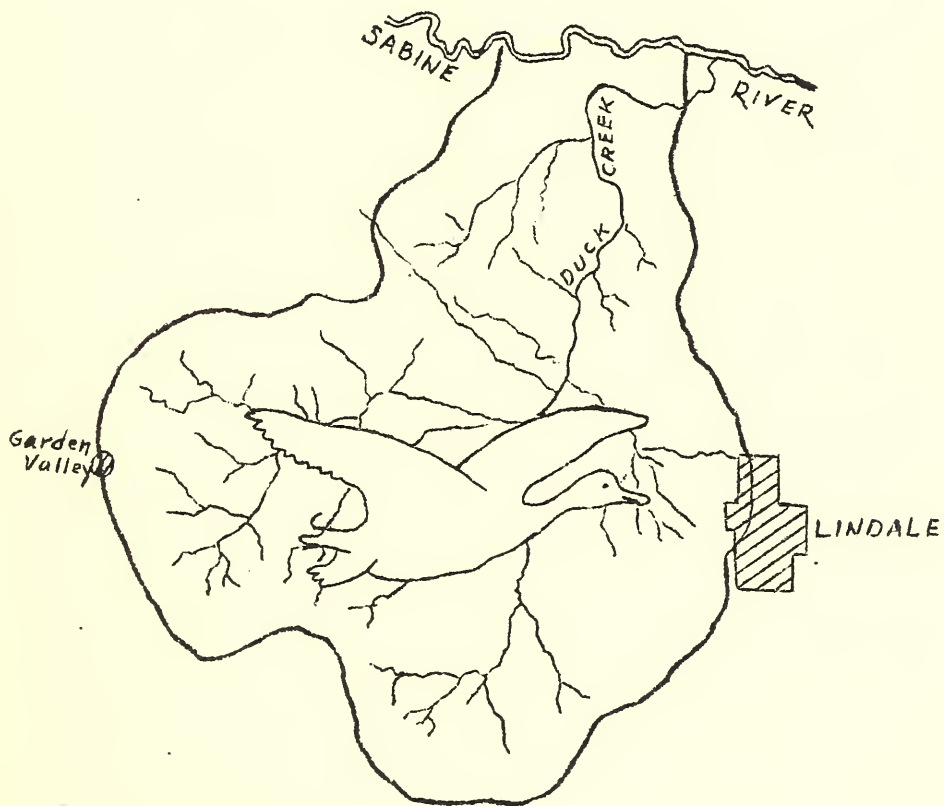


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DUCK~CREEK~NEWS

UNITED STATES
DEPARTMENT of the INTERIOR
SOIL EROSION SERVICE
Project No. 20
LINDALE, TEXAS



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Mt. Sylvan

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EROSION CONTROL AND THE FUTURE

Yesterday a man who has the money to buy a farm asked us if a certain farm in the Duck Creek area was included in the Soil Erosion Service program. When told that as yet the owner had not signed a Cooperative Agreement and that no work could be done until the agreement was made, he expressed disappointment, saying that he was thinking of buying the place if and when proper steps were taken to control erosion on it.

The owner of that farm may or may not want to sell it, we don't know about that. But we do know that prospective buyers of farms are becoming more and more critical of the land in which they invest their money.

The modern merchant is stressing more and more goods that "sell themselves". That means that the goods must be clean, neatly packaged, and attractively displayed. They must give to the prospective purchaser the idea that "this package contains goods that are worth your money". Every one knows that our first impression of any commodity determines to a large extent whether or not we buy it.

A washed away, gullied farm makes a mighty poor sales talk. If it does "talk", it says to the prospective buyer, "Look out! I've been abused and neglected. You'll have a hard time making a profit or even a living on me!"

Even if you are not considering the welfare of your own children or someone else's children who will have to make a living on the land that you now own, your land should be protected from erosion. Even if you are not thinking of the future welfare of the American nation, which must have the strength of good farm land if it is to live on and on, your land should be protected from washing away. Even if you are thinking only in terms of the next few years and of the living you can get out of the land in that short time, the soil that belongs on your farm should be held there. You may want to sell that farm some day, and gullied, clay galled farms are not in demand, either by the man who wants to make a living directly from the farm or the one who wants to invest his money safely.

PLOWING NEWLY TERRACED FIELDS

The question as to what is the best plan to follow in plowing newly terraced fields is one frequently asked of Soil Erosion Service workers. The answer to this question depends on whether the farmer wants to flat break the whole field or whether he wishes to use a turning plow on his terraces, only, breaking the intervals between terraces with a middle buster. Where the old rows do not run with the new terraces, it is advisable, if not practically necessary to flat break the whole field. In

that case, the best method is to make a land of the area between each two terraces, starting the plowing on the ridges of the terraces and finishing up midway between each two.

When for lack of time or for any other reason it is not desired to flat break the whole field but merely to re-plow the terraces, then the proper method is to back-furrow them. In back-furrowing the start is made a little to the left of the top of the terrace, plowing along it to the end, then turning and plowing back again on the other side, always throwing the dirt toward the top so as to increase the height of the terrace.

It is important that all soil be thrown up against or toward the terrace and none away from it in plowing. Throwing the soil up from the lower side builds the terrace up, and throwing it toward the terrace from the upper side has the same effect. In addition it tends to fill up some of the pockets and low places made above the terrace in moving dirt for fills across washes and small gullies. If these pockets are not filled, water will collect in them in pools after each rain until they are smoothed up by natural means.

Throwing dirt toward the terrace in plowing also works top soil over areas which may have been bared to the subsoil by the grader in building the terrace. Until these areas are again covered with top soil there is nothing there to support plant life. The action of water will spread top soil over the bare spots above the terraces in the course of one or two years, if one cares to wait that long, but as the tendency is the other way below the terraces, it is necessary to cover them with soil by plowing dirt toward them.

A CRISIS

"No nation or race has used its agricultural lands so wastefully as the United States. Once we looked upon these lands as being limitless and inexhaustible and while we have spent hundreds of millions of dollars for fertilizers, soil improving crops, plant breeding, agricultural machinery and education with the view of conserving the fertility of the land, we have done little to conserve the soil itself.

"Of course, we must continue to cultivate in the neighborhood of 300 million acres. No one is proposing to discontinue such cultivation. We shall never be able to stop erosion completely or to cause all the rainfall to be absorbed by the ground; but we can, if we will, go far in the direction of reducing these losses and at the same time produce enough and more for all our needs. If this is to be a permanently prosperous country, we must from now on battle for the conservation of our remaining areas of good farm land." -- H. H. Bennett, Director U. S. Soil Erosion Service, Washington, D. C.

STEEP SLOPES

The other day we talked to a man who said, "I don't want to take that steep slope out of cultivation. I know I can't hold the soil up there but I can make probably ten dollars an acre on it for the next couple of years and then maybe five dollars an acre for the next two or three years. It will be pretty well washed away by then, but I should worry about that for it will have repaid me what I paid for it."

That's a pretty strong argument, unless we stop to think that:

1. Clay and sand which washes down after the top soil has been removed covers and ruins good land farther down the slope.
2. Gullies which start in such land grow deeper, wider and longer, damaging good land above and below.
3. The sale value of the entire farm is lowered by the presence of eroded "eyesores" on it.
4. Gullies which start on such slopes make "patch-farming" necessary and often cause a great deal of inconvenience in moving tools or stock from one part of the farm to the other.
5. Many of the steep slopes can be profitably utilized in pasture if the pasture is established before erosion has gone too far.
6. Steep slopes can be used profitably to supply farm needs of fire wood, post timber, etc.
7. Taxes must be paid even after persimmon sprouts and sassafras bushes are the only crop growing on the land.

CONTOUR FURROWING OF PASTURES

Farmers who are not familiar with the contour furrowing of pastures are asking a number of questions about the labor required, the cost and final value of the work.

Everyone knows that having enough good pasture often means that live-stock can be safely carried through the winter when otherwise there would be heavy loss from starvation. We know that more good pasture is needed on every farm, also that practically every farm has sloping areas which are not suitable or profitable to cultivate. On some of these slopes good pastures can be made, but first provision must be made to hold the soil and fertility that remains, to hold all the moisture possible and to prevent seed from washing off down hill. That is where the contoured furrows play their part. If you want to check up on how well they do the job, visit the Experiment Station near Swan, or the farm of Mr. Gus F. Taylor, south of Tyler.

Mr. Pete White of the Red Springs community is proud of twenty acres of upland pasture which he contour furrowed last summer. Mr. White did his work during the hot weather and while the ground was very hard. Under those conditions it took three and one-half days to plow up the furrows on the twenty acres. He also distributed and covered manure in the center of each ridge, and set Bermuda grass on both sides and on the top. Six days were required to cut the sod and do this work. Nine and one-half days were thus required to do the complete job, and this time would have been cut down if there had been a reasonable amount of moisture in the ground.

Mr. Virgil Stone put in the greater part of a day in contour furrowing two acres of hillside pasture. Mr. Stone also did his work while it was very hot and it was necessary to let the team rest frequently.

Those who are planning to do pasture development work, including the contour furrowing, will find that especially after it rains and the ground is easier to work, the amount of labor required is negligible compared to the great benefits to be derived.

PROGRESS ON OTHER PROJECTS

We feel sure that farmers of the Duck Creek area will be interested in knowing what is going on in other projects, so we are herewith quoting a report just received from the Sandy Creek Project at Athens, Georgia. This project covers about 100,000 acres, and many of the conditions existing there are similar to those of the Duck Creek area.

635 farmers, owning 75,585 acres, have requested cooperation.
364 Cooperative Agreements have been signed.
33,680 acres in farms covered by agreements.
17,732 acres in cultivation on farms covered by agreements.
8,516 acres in strip crops.
16,409 acres to be terraced.
1,184 acres retired from cultivation to pasture.
1,348 acres retired from cultivation to forest.

Looks as though the folks in Georgia believe in erosion control, doesn't it?

HAS YOUR WELL GONE DRY? IS YOUR LAND "DROUTHY"?

In the "Northwester", published by the Pullman, Washington Project, the following statement is made: "The water level in your soil cannot be higher than the bottom of your deepest gully."

If your fields are gullied, you cannot expect the soil of the ridges between the gullies to hold moisture to tide your crops over periods of drouth because of rapid evaporation of water from the gully

banks and resultant constant lowering of the water table. Most of our crops are shallow rooted and cannot draw their moisture from any great depth, so the water must be held up to them if they are to live and thrive.

The drying up of many wells and springs can also be traced to a nearby gully, so it is well to remember that erosion is to blame for many troubles and inconveniences.

SOIL TYPES OF THE DUCK CREEK AREA

Next to the Kirvin soils, described in the October issue, the Nacogdoches soils have probably suffered most from erosion because of the fact that practically all of the land of this type is in clean cultivated crops. Sheet erosion has been especially severe, which accounts to a considerable extent for the "drouthiness" of this land.

Nacogdoches Soils: The Nacogdoches soils are red, blood-red or reddish-brown. They merge below with red, rather heavy, crumbly, permeable clay subsoils which in some places at least are underlain by beds of green-sand and limy material at a depth of several feet. The soils and subsoils characteristically contain fragments and layers of ironstone. The surface is generally rolling and in places hilly with some rather steep slopes. Where rapidly drained, the unprotected surface is subjected to severe erosion, though this is not so severe as on the soils of either denser, or more sandy friable subsoils. Under the same conditions Nacogdoches soils are only half as erosive as are the Kirvin soils.

The fine sandy loam is the most extensive soil of the series though other soils also occur, some of which contain a large amount of ironstone fragments. The native vegetation consists mainly of red-oak and some other species of oak with a few other trees. A large proportion of these soils is under cultivation, as they are suited to most farm and truck crops and fruits and produce good yields. Where the humus content is low because of erosion or continuous cropping and the power of absorption is reduced, the Nacogdoches soils are easily affected by drouths, even of short duration, and under these conditions have become known as "early" soils, that is, if the crop planted is not early maturing, the yields are very apt to be low. They respond profitably to good methods of soil improvement and fertilization and appear to be lasting in their productive capacity. Even the soils which have a large amount of the ironstone are productive.

VISITORS

That interest in erosion control is widespread is demonstrated by the fact that many people from near and distant points are visiting the project for the purpose of studying the work as it progresses. Several groups have come to find out if it would be possible to secure projects in their communities or counties. Although work on the Duck Creek

Project has been hampered by the exceedingly dry weather, so that seeding of fall sown strips and cover crops has been prevented and very little pasture contouring has been done because of the lack of moisture, visitors are always welcome. We want you to make not only one, but several visits so that you may watch the progress of the work.

Among those who have recently visited are:

County Agent G. M. Morris of Harrison County and Mr. A. B. Emmons, Teacher of Vocational Agriculture at Marshall, with a group of fifty-five boys and farmers.

Mr. V. T. Fitzhugh, Teacher of Vocational Agriculture of Tyler, with forty-two vocational students.

Mr. E. D. Bolton, Teacher of Vocational Agriculture, Lindale, with twenty-nine boys.

County Agent G. L. Clyburn and Mr. A. J. McKenzie of Cherokee County.

Messrs. Floyd Dodson, J. L. Dodson, L. D. Dodson, and C. O. Kieffer of Wood County.

Messrs. Woodman, Hill, and Newman of the Elm Creek Soil Erosion Demonstration at Temple.

Messrs. Senter and Roberts, Teachers of Vocational Agriculture at Van, Van Zandt County.

Mr. Erwin Fleetwood of Terrell, Kaufman County.

Mr. & Mrs. M. R. Bentley, Extension Agricultural Engineer, College Station, Texas.

AN EDITORIAL ON THE SOIL EROSION SERVICE -- ATLANTA (Ga.) JOURNAL

"A service more essential to America's fundamental industry can hardly be imagined. Some thirty-five million acres of land formerly cultivated have been ruined by uncontrolled erosion, land which, if it had been saved, would be worth nearly two billion dollars. One hundred and twenty-five million additional acres have been denuded of their more productive top soil, and as a result have depreciated in value to the extent of three billion dollars. Such is the penalty paid by agriculture for the misuse of land. And the wasteful, destructive process goes on. Strange is it not, that while we have spent vast sums of money for fertilizing the soil and for research and experiment in making it more productive, we have done little, until now, to save the soil itself? But at last this all-important work has begun in earnest and effectively. It means a new day of security and prosperity in the country at large, and likewise in Georgia where one of the demonstration projects goes forward."

COOPERATOR COMMENTS

Mr. Jonah Hall of Carmel Community says, "I'm mighty well pleased with the Soil Erosion Service work on my farm. I believe my farm will be worth twice as much to me in five years as it is now, but if washing hadn't been stopped, it wouldn't have been worth anything in five years."

Mr. Ben R. Copeland states, "My farm is already worth two thousand to three thousand dollars more than it was before erosion control work was started."

Mr. I. D. Ham of Harris Chapel community comments, "There is nothing called for in the Cooperative Agreement that we shouldn't have already done ourselves."

Mr. O. C. Sharman in talking to Mr. D. A. Cline stated, "The Soil Erosion Service has done some mighty fine work on my farm and has also been more than reasonable about what they have asked me to do for my part."

Mrs. R. L. Lovelady comments, "I have not only found the Soil Erosion Service men pleasant, practical, and willing to give us their cooperation, but I also feel that they are giving us something very valuable for almost nothing."

Uncle Washington Springs (colored) talking to the terracing crew declared, "You all is the ugliest crew of men I ever seen, but you does the prettiest work I ever seen!"

